Title: Stochastic games

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Abstract: In the text of this thesis we deal with the classification of stochastic games, which is closely related to investing in various financial instruments. With the help of utility functions, we are looking for the optimal and relatively safe bet on a mathematically convenient game. It will be demonstrated, why it does not pay off to take part in fair games and games of chance in the long run, as well as how such games relate to moral hazard. The thesis is written in a way that should make it accessible to the wide public, therefore there are numerous examples and interpretations in order to facilitate the understanding of the mathematical theory. Some parts can also be used by teachers as a direct source for teaching financial literacy in primary and secondary schools.

Keywords: Optimal and relatively safe bet, CARA a HARA utility functions, moral hazard, financial literacy